

NEW VERSIONS OF CLAIMS WITH INCORPORATED AMENDMENTS

Sub B1 > 1. A system for providing enhanced functionality for handling each event of at least one event received by a window object having a plurality of window controls comprising:

AI a plurality of control enhancer objects, each providing an interface to a one specific control for said window object and being customized with specific behaviors from a plurality of base classes and subclasses; and

a list of said control enhancer objects for said window, whereby said window passes an event to all of said control enhancers on said list and wherein said control enhancers determine which of said plurality of control enhancer objects should handle the received event.

Sub C-7 2. The system of Claim 1 wherein each of said plurality of control enhancer objects is customized with at least one data storage handler.

3. The system of Claim 1 wherein each of said plurality of control enhancer objects is customized with at least one data initializer.

4. The system of Claim 1 wherein each of said plurality of control enhancer objects is customized with at least one data finalizer.

Sub 2  
5. The system of Claim 1 wherein a first one of said window controls is related to at least one second of said window controls, said control enhancer object for said first window control further comprising at least one pointer to the control enhancer object for said second window control; at least one means for determining if an action at said first control enhancer object affects said second control enhancer object; and means for communicating with said second control enhancer object.

Cont A1  
6. The system of Claim 1 wherein at least one of said control enhancer objects further comprises means for determining limits to be placed on data related to said control enhancer object.

7. The system of Claim 4 wherein at least one of said control enhancer objects further comprises means for validating data at said data finalizer.

8. The system of Claim 1 wherein at least one of said control enhancer objects further comprises means for identifying

data related to the window control of said at least one control enhancer object.

Sub B3) 9. A system for providing enhanced functionality for handling each event of at least one event received by a window object having a plurality of window controls comprising:

a plurality of base classes and subclasses representing discrete behaviors;

Cont A1 a plurality of control enhancer objects, each providing an interface to a one specific control for said window object, each of said control enhancer objects being customized with at least one of a plurality of specific behaviors using said plurality of base classes and subclasses comprising at least one data storage handler, at least one data initializer; and at least one data finalizer; and

a list of said control enhancer objects for said window, whereby said window passes an event to all of said control enhancers on said list and wherein said control enhancers determine which of said plurality of control enhancer objects should handle the received event.

10. The system of Claim 9 wherein a first one of said window controls is related to at least one second of said window controls, said control enhancer object for said first window control further comprising at least one pointer to the control

enhancer object for said second window control; at least one means for determining if an action at said first control enhancer object affects said second control enhancer object; and means for communicating with said second control enhancer object.

Sub 7  
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A1  
11. The system of Claim 9 wherein at least one of said control enhancer objects further comprises means for determining limits to be placed on data related to said control enhancer object.

12. The system of Claim 9 wherein at least one of said control enhancer objects further comprises means for validating data at said data finalizer.

13. The system of Claim 9 wherein at least one of said control enhancer objects further comprises means for identifying data related to the window control of said at least one control enhancer object.

14. A method for providing enhanced functionality of window controls in response to at least one event received at said window, said window comprising a plurality of control enhancer objects, comprising the steps of:

receiving an event at said window;

locating at least one interested control enhancer object for  
said event from said plurality of control enhancer objects;

passing said event to said at least one interested control  
enhancer object; and

handling said event at said at least one interested control  
enhancer object.

15. The method of Claim 14 wherein said window comprises a  
control enhancer object list of events affecting each of said  
listed control enhancer objects and wherein said locating  
comprises:

accessing said list of events;

comparing said received event to said list of events; and

determining interested control enhancer objects based on  
said comparing.

17. A method for rapid graphical user interface development  
for providing an enhanced control for event handling on a window  
comprising the steps of:

creating a plurality of base classes and subclasses for  
discrete behaviors;

creating a control on said window;

instantiating a control enhancer object as an interface to  
said window for said control;

customizing said control enhancer object by associating selected behaviors to it using said plurality of classes and subclasses; and

passing a pointer for said control to said control enhancer.

18. The method of Claim 17 wherein said associating comprises the steps of:

determining if special data handling is required; and

instantiating at least one data handler if special handling is required; and

assigning said data handler to said control enhancer object.

19. The method of Claim 17 wherein said associating comprises the steps of:

determining if special initialization is required;

instantiating at least one data initializer if special initialization is required; and

assigning said at least one data initializer to said control enhancer object.

20. The method of Claim 18 wherein said associating comprises the steps of:

determining if special initialization is required;

instantiating at least one data initializer if special initialization is required; and

assigning said at least one data initializer to said control enhancer object.

21. The method of Claim 17 wherein said associating comprises the steps of:

determining if special data finalization is required;

instantiating at least one data finalizer if special finalization is required; and

assigning said at least one data finalizer to said control enhancer object.

22. The method of Claim 18 wherein said associating comprises the steps of:

determining if special data finalization is required;

instantiating at least one data finalizer if special finalization is required; and

assigning said at least one data finalizer to said control enhancer object.

23. The method of Claim 19 wherein said associating comprises the steps of:

determining if special data finalization is required;

instantiating at least one data finalizer if special finalization is required; and

assigning said at least one data finalizer to said control enhancer object.

24. The method of Claim 20 wherein said associating comprises the steps of:

determining if special data finalization is required;

instantiating at least one data finalizer if special finalization is required; and

assigning said at least one data finalizer to said control enhancer object.

25. The method of Claim 17 wherein said associating comprises the steps of:

determining if said control has at least one relationship with at least one other control on said window;

instantiating said at least one relationship;

assigning said at least one relationship to said control enhancer object; and

passing a pointer to each of said at least one other control.



28. A system for rapid graphical user interface development  
for providing enhanced control for event handling on a window  
comprising:

class means for creating a plurality of base classes and  
subclasses for discrete behaviors;

control enhancer creation means for instantiating a control  
enhancer object as an interface to said window for said control;  
and

control enhancer customizing means for customizing said  
control enhancer object by associating selected behaviors to it  
using said plurality of classes and subclasses.